is deposited over the entire surface in such a manner that a discontinuity thereof occurs in the openings 106a, 106b. The refractory metal thin film has a single region structure comprising W, WSi, WSiN, WN, or TiW, or a laminated structure having a combination of these materials as in the gate electrode of the FET already described in the principle of the present invention. As the deposition method of the refractory metal thin film, sputter deposition is preferable. Sputter deposition makes smoothly arched-top surfaces of the refractory metal thin film 108c, i.e., the gate electrode, and the refractory metal thin films 108a, 108b, i.e., the ohmic electrodes.